

又接合の機会を持たなかつたと思はれる Macrogamete が観察されたが、これも外形から見て容易に前記 Zygote と區別がつかない。このものの單性發芽は行はれると思はれる節がある。

放出後或時間を経過すれば遊走細胞はすべて静止して球狀となる。この球狀細胞は以上の何れに由來したものかは識別する事が出来ない。この様な細胞の集團は水中放出に於いて母葉體の周圍ごく近い處に綠色斑となつて見られる。

時田 訥* : 海藻 知 見 (2)

Jun TOKIDA : Notes on Some New or Little Known Marine Algae. (2)

2. *Pugetia palmatifolia* sp. nov. (Figs. 7-9).

This alga was found cast ashore, attaching to a small piece of sand stone, at Higashisōya on the eastern coast of southern Saghalien, in August 1929. Its frond is carnosomembranaceous in substance, and resembles in general appearance a certain form of *Erythrophyllum Gmelini* YENDO. The



Fig. 7. *Pugetia palmatifolia* Tokida.

Part of the plant, showing the palmate blade, $\times 1/4$.

herbarium specimen is reddish-brown in color and adheres firmly to paper. The frond is ca. 14 cm. in height, attaches to the substratum by means of a small disc. The basal part of the frond is stalk-like and branched, gradually broadened upward, and sends off proliferous blades from the margin. The blades are obovato-cuneate in shape, smooth or slightly crenate or rarely dentate at the margin, ca. 190μ thick in the marginal portion, up to 390μ thick near the base, usually palmately cleft into irregular laciniae, and frequently proliferate on the margins into similarly shaped

lobes. In the internal structure of the marginal part of the blade, our

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Addenda. The explanation of the text-figures in the 1st part of this report is as follows: Fig. 1: Tetrasporangial plant on a branchlet of the host, $\times 5/6$; Fig. 2. Antheridial plant on a branchlet of the host, $\times 5/6$; Fig. 3. Part of a tetrasporangial plant, $\times 1$; Fig. 4. Cross section through a cystocarpic plant, $\times 19$; Fig. 5. Cross section through an antheridial plant, $\times 15$; Fig. 6. Antheridial plants, young and full grown. *in situ*, $\times 12$.

plant agrees *Callophyllis* in having a few rhizoidal cells between big roundish medullary cells, the latter being usually in two layers in our plant and not so closely set as in *Callophyllis*. The rhizoidal cells are somewhat thicker than those of *Callophyllis*, and run vertically mainly through the central part of the medulla. In the basal part of the blade and in the stalk, the medullary layer contains a considerable amount of rhizoidal cells, which fill up the central space between the two layers of big medullary cells and occupy the larger part of the medulla, contributing thus to the increase of the thickness in these parts of the frond. Reproductive organs are unfortunately not found in the specimens at hand.

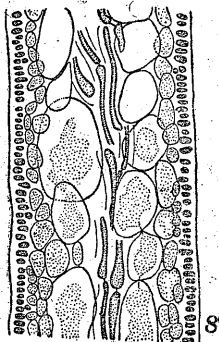


Fig. 8. Vertical section through the marginal portion of the blade $\times 190$

structure of the frond, it may be justified to classify the present plant in the genus *Pugetia*. This genus was originally founded on an alga discovered at Canoe Island, Wash., U.S.A., and named *Pugetia fragillissima* by Kylin¹⁾ (1925 p.30). In 1941, the last mentioned author²⁾ described the second species *P. firma* Kylin, when he recognized the close affinity between his two species and *Microcoelia chilensis* J. Agardh and transferred the latter to *Pugetia*

Considering from the above described

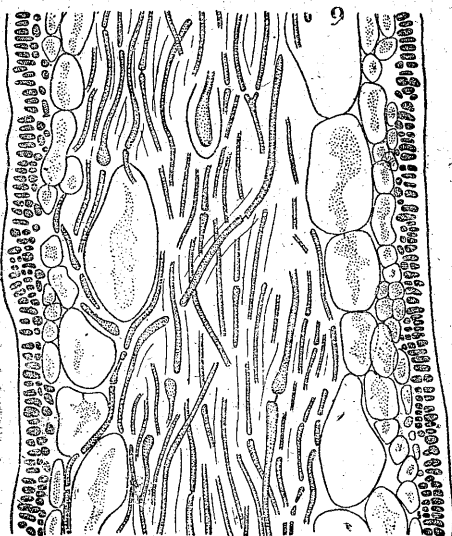


Fig. 9. Vertical section through the basal portion of the blade. $\times 190$.

- 1) Kylin, H, 1925, The marine red algae in the vicinity of the Biological Station at Friday Harbor, Wash, Lund Univ. Arsskr. N.E.Avd. 2, 21(9): 1-87
- 2) Kylin, H. 1941. Californische Rhodophyceen. Kungl. Fysiogr. Sallskap. Handl. N. F., 52 (2): 3-51,

because *Microcoelia* had already been applied by Lindley³⁾ (1830, p. 60) to a genus of Orchidaceae before it was used by J. Agardh⁴⁾ (1876, p. 226) in naming the Chile alga. Kylin has added to the genus two more species, i.e., *P. sanguinea* (Montag.) Kylin and *P. japonica* Kylin, the latter being proposed for *Microcoelia chilensis* (non J. Ag.) Okamura⁵⁾ (1900, p. 7) or *Callophyllis* (*Microcoelia*) *chilensis* (non J. Ag.) Okamura (Alg. Jap. Exsic., no. 12). Our Saghalien plant in consideration is more complex in the external appearance than any of these known species of *Pugetia*, so that I propose to name it *Pugetia palmatifolia* sp. nov. As already mentioned in the above description, the present new species resembles a certain form of *Erythrophyllum Gmelini* Yendo, especially in having stalks formed by eroded old blades. However, it differs from the latter in its somewhat thinner blade, differently shaped and colored. The medullary rhizoidal cells sometimes happen to contain a few yellowish crystals, but a sort of the giant cells with homogeneous yellowish content found in the medulla of an *Erythrophyllum* can not be observed in our new species. The blade is usually cleft palmately and often proliferated on the margins, but not branched more or less regularly dichotomously as in *Callophyllis*.

The definition of the genus *Pugetia* in such a broader sense as comprising all of those species mentioned above as well as the present new one will be given as follows:

***Pugetia* Kylin.** Frond from a small scutate disc, forming a sessile or stalked blade; the blade membranaceous, orbicular or obovate, umbilicately cordate or cuneate at the base, with an entire or broadly and irregularly lacinate margin; tissue composed of two layers, cortical and medullary; cortex consisting of 1-3 rows of small assimilating cells; medulla consisting of 1-2 (-3) rows of big cells and more or less abundant small isodiametric or elongated rhizoidal cells running between the big cells; cystocarps scattered over the frond, immersed in the medullary layer; tetrasporangia scattered in the cortical layer, cruciately divided.

The diagnosis of the new species is given below:

***Pugetia palmatifolia* Tokida, sp. nov.** Fronde carnosó-membranacea in sicco arcte chartae adhaerente, saxicola, disco parvo adfixa, ca. 14 cm.

3) Lindley, 1830, Genera & species of Orchidaceous plants

4) Agardh, J. G. 1876, Species genera et ordines algarum, 3 (1).

5) Okamura, J. K. 1900, Illustrations of the marine algae of Japan. 1 (1).

alta, inferiore parte caulifera et ramosa, sursum latior et ad marginem foliis proliferis ornata; foliis obovato-cuneatis, margine ca. 190μ inferne usque ad 390μ crassis, plerumque irregulariter subpalmato-laciniatis, margine integris aut leviter crenatis aut raro dentatis, saepe segmentis conformibus proliferis, cellulis rhizoidiformibus strati medullaris elongatis, inter strata duo cellulis rotundatis magnis constituta verticaliter percurrentis, in superiore parte foliae paucis, sed in inferiore parte foliae et in stipite numerosis; fructis ignotis. Japanese name. *Yatsude-Kinuhada* (n. n.).

Habitat. Found cast ashore, attaching to a small piece of sand stone. Higashisōya, Saghalien, (Tokida, Aug. 1929).

2. ヤツデキヌハダ (新稱) はキヌハダ屬(岡村金太郎博士) *Pugetia* (Kylin 1925) の新種で、樺太東岸の東宗谷の海濱の打揚げ品中に発見された。*Pugetia* は元來北米ワシントン州の Canoe Isl. の一種を土臺として設けられた屬で、命名者 Kylin は 1941 年に更に一新種を加へた際、これら 2 種と *Microcoelia chilensis* J. Ag. との近縁を認めたが、*Microcoelia* なる屬名は J. Agardh (1876) に先立つて Lindley (1830) が既にラン科の屬名として用ゐてゐるので、該種を *Pugetia chilensis* (J. Ag.) Kylin と改名すべしとした。キヌハダは岡村博士により *Microcoelia chilensis* に同定され、*Callophyllis chilensis* (J. Ag.) Okamura と改稱されたが、Kylin はこれを別種と認め *Pugetia japonica* Kylin と命名した。本新種はキヌハダと體形を異にし、同屬の既知種のどれよりも外形が複雑である。組織はキヌハダ屬の特徴を示してゐる。生殖器官は未詳。

今堀宏三：東亞輪藻類雜記 (其の一)

KOZO IMAHORI; Miscellaneous Papers on the East Asiatic Carophyta. (I)

1. *Nitella stellaris* Allen ハナビラフラスコモ及び *Nitella subspicata* Allen テンツキフラスコモの日本産は誤り。

本邦産輪藻科植物について研究を行つた最初の人ハ米人 T. F. Allen 氏であることは周知のことである。氏は田中芳男氏採集にかゝる本邦産輪藻科植物を研究し、その結果を Bulletin of the Torrey Botanical Club, 21 (1894), 22 (1895), 23 (1896), 及び 25 (1898) の各巻に相次いで發表した。

牧野富太郎博士は、Allen 氏の發表せるもの及び齋田功太郎博士が植物學雜誌 1 卷 2 號に發表されたものを整理せられ、和名を附して挿圖と共に本誌 6 卷 12 號に發表